REMARKS

In the pending Office Action, claims 1-16 were rejected under 35 U.S.C. § 103(a) as allegedly unpatentable over U.S. patent number 6,320,583 to Shaw et al. in view of U.S. patent number 5,608,839 to Chen, and further in view of U.S. patent number 5,875,108 to Hoffberg et al.

Applicants respectfully traverse each of the rejections and respectfully request reconsideration of this application in light of the following remarks.

The rejection of claim 1 as allegedly unpatentable over the Shaw patent in view of the Chen patent, and further in view of the Hoffberg patent, is respectfully traversed. Applicants note that claim 1 has been amended to eliminate the feature added in the previous amendment, which feature is now covered in new dependent claim 19, and that the Hoffberg patent will be address with respect to claim 19. Applicants respectfully assert that the Shaw patent and the Chen patent fail to disclose or suggest all of the features recited in amended claim 1. The Examiner admits that the Shaw patent fails to disclose "providing a plurality of audio-facial-animation values based on visemes detected using the synchronously captured audio voice data of the speaking actor" as recited in claim 1. See, Office Action, page 3. The Examiner then asserts that Chen patent "teaches that the 'synchronously' captured audio data of a speaking actor and its facial image is well known in the art". Id. The Examiner, however, fails to assert that the Chen patent teaches visemes detected using synchronously captured audio voice data. Applicants asserts that the Chen patent actually teaches away from detecting visemes using synchronously captured audio voice data. Instead, the Chen patent teaches that originally synchronized video and audio signal may become unsynchronized and visually annoying. See, column 1, lines 22-30. Lip synchronization can be imparted by detecting visemes in the unsynchronized audio signal and applying the visemes to the unsynchronized video signal in synchronism with the visemes in the audio signal. See, column 1, lines 33-41, and column 2, lines 23-39. Applicants assert that an unsynchronized audio signal is not a synchronized audio signal. Further, the use of the invention

in the Chen patent is for two-way video communication such as videotelephony. If the audio signal and the video signal are synchronized, the invention of the Chen patent is unnecessary because no visually annoying effects are observed. Thus, the Chen patent fails to disclose "providing a plurality of audio-facial-animation values based on visemes detected using the synchronously captured audio voice data of the speaking actor" as recited in claim 1. (Emphasis added). Applicants further assert that the Examiner has not addressed the issue of motivation to combine the teachings of the Shaw patent and the Chen patent. The showing of motivation to combine references is an essential component of an obviousness holding, and the factual inquiry of whether to combine references must be thorough, searching, and based on objective evidence of record. See, In re Lee, 61 U.S.P.Q.2d 1430 (Fed. Cir. 2002). Further, reliance on conclusory statements related to motivation to combine references without setting forth the rationale on which the conclusory statements rely violates the agency obligations under the Administrative Procedure Act. Id. Applicants asserts that the stated rejections fail to make the requisite showing of motivation to combine the cited references, and to set forth the objective evidence of record supporting the showing of motivation to combine the references. Accordingly, Applicant respectfully asserts that amended claim 1 defines patentable advances over the Shaw patent in view of the Chen patent. For these reasons, the rejection of independent claim 1, under 35 U.S.C. § 103(a), is improper and should now be withdrawn.

The rejections of dependent claims 2-8, which depend on independent claim 1, as allegedly unpatentable are respectfully traversed. In addition to the particular features recited in each claim, claims 2-8 include the features recited in independent claim 1 but not disclosed or suggested by the cited patents. Also, with respect to claim 4, the Examiner asserts that "Kalman filter . . . are well know for using to track the motions such as in . . . Freeman (6,115,052, the Kalman filter is used also on tracking the motion, column 11, line 1-column 364, line 67)". See, Office Action, page 9. Applicants respectfully assert that claim 4 has no features related to tracking of motion using a Kalman filter. Instead, claim 4 recites "wherein the output facial

animation values associated with a mouth for a facial animation are based on Kalman filtering of the respective mouth-associated values of the plurality of visual facial animation values and the respective mouth-associated values of the plurality of audio facial animation values of the respective mouth-associated values of the plurality of visual facial animation values and the respective mouth-associated values of the plurality of audio facial animation values to produce output facial animation values." Thus, Applicants continue to respectfully assert that the Examiner impermissibly fails to provide a factual finding supported by sound technical and scientific reasoning to support the conclusion of common knowledge related to Kalman filtering of facial animation values. Based on Applicants' traversal of the Examiner's "well known" assertion, Applicants again request that the Examiner provide documentary evidence in the next Office Action to support of the Examiner's position if the rejection of claim 4 is to be maintained. See MPEP 2144.03(C). Accordingly, for these reasons, and the reasons recited with respect to independent claim 1, dependent claims 2-8 define patentable advances over the cited patents and the rejections of claims 2-8 under 35 U.S.C. § 103(a) should now be withdrawn.

The rejections of claims 9-16 as allegedly unpatentable over the over the Shaw patent in view of the Chen patent, and further in view of the Hoffberg, are respectfully traversed. Claims 9-16 are apparatus claims corresponding to the method claims 1-8, respectively. Accordingly, for the reasons recited above with respect to claims 1-8, claims 9-16 define patentable advances over the cited patents, and the rejections of claims 9-16 under 35 U.S.C. § 103(a) are improper and should now be withdrawn.

New claims 17 and 19 correspond to previously presented claims 1 and 9, respectively, which were rejected as allegedly unpatentable over the over the Shaw patent in view of the Chen patent, and further in view of the Hoffberg. The Examiner asserts that the "tracking of motion without using the markers are well known in the art (see Hoffberg, column 18, lines 1-21)." See, pages 4-5. The Hoffberg patent is directed to an adaptive pattern recognition based control system for a programmable system such as a VCR. The cited portion of the Hoffberg patent

relates to an optoelectronic neural network for automated target recognition. A wavelet preprocessor was employed for feature extraction preprocessing. Applicant respectfully asserts that the combination the cited patents and the well known art assertion is based on impermissible use of hindsight analysis. A highly selective combination of references is impermissible because it improperly uses the Applicant's disclosure and claims as a blue print to selectively pick and choose among a myriad of features to fictionally piece together the claimed invention. In re Fritch, 23 U.S.P.Q.2d 1780, 1784 (Fed. Cir. 1992). Accordingly, for these reasons and the reasons recited with respect to independent claim 1, dependent claims 17 and 19 define patentable advances over the cited art, and new claims 17 and 19 should now be allowed.

New claims 18 and 20 are supported in the original specification at page 3, line 22 to page 4, line 1.

Acknowledgement is requested for the domestic priority claim to U.S. Patent Application Serial No. 09/871,370, made by Preliminary Amendment submitted December 7, 2001.

CONCLUSION

In view of the above amendments and remarks, reconsideration and prompt evaluation of all pending claims are respectfully requested. If any questions or issues remain, the Examiner is invited to contact the undersigned at the telephone number set forth below so that prosecution of this application can proceed in an expeditious fashion.

Respectfully submitted,

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